

Amendments to the Claims

The listing of claims will replace the previous version, and the listing of claims:

Listing of Claims

1. (currently amended) An axial gap electronic motor comprising a stator and a rotor each formed approximately in a disc shape and disposed opposingly at a same rotary shaft with a predetermined gap,

wherein said stator comprises a plurality of pole members annularly connected, each of said pole members having a stator iron core, and an insulator for winding a coil, said insulator being integrally formed with the stator iron core as one unit and having connecting means for connecting adjacent pole members, and a coil wound around the insulator.

2. (currently amended) The ~~An~~ axial gap electronic motor according to claim 1, comprising a stator and a rotor each formed approximately in a disc shape and disposed opposingly at a same rotary shaft with a predetermined gap,

~~wherein said stator comprises a plurality of pole members annularly connected, and~~

~~wherein each of said pole members has a stator iron core, and a bobbin-shaped~~ said insulator has a bobbin shape including a pair of left and right flanges for winding a coil and formed around said stator iron core, and said insulator is provided with connecting means for connecting each of said adjacent pole members comprises first connecting means and second connecting means formed at outer and inner periphery sides of the respective flanges of the insulator when viewed from a center of the stator.

3. (currently amended) The axial gap electronic motor according to claim 2 1, wherein said flanges are formed to be larger than winding width of the coil wound around said insulator.

4. (currently amended) The axial gap electronic motor according to claim ~~2~~ 1, wherein said connecting means includes ~~at least one of a rotatable first engaging member and a rotatable second engaging member, said first engaging member comprising a combination of a boss formed on one side face of a flange of the insulator and a bearing recessed portion formed on a side face of a flange of another pole member opposite thereto therefor, said boss and recessed portion being provided at outer periphery sides, seen from a center of said stator, on opposing surfaces of said flanges of said adjacent pole members, and said second engaging member comprising a combination of a boss and a bearing recessed portion therefor, said boss and bearing recessed portion of the second engaging member being provided at inner circumferential sides, seen from the center of said stator, on the opposing surfaces of said flanges of said adjacent pole members.~~

5-8. (cancelled)

9. (currently amended) The axial gap electronic motor according to claim 1 ~~2~~, wherein a connecting wire support member for supporting a connecting wire to be laid between the pole members is integrally provided in at least one of said flanges in each of said pole members.

10. (previously presented) The axial gap electronic motor according to claim 9, wherein said connecting wire support member is provided to jut out to a side of said flange.

11. (previously presented) The axial gap electronic motor according to claim 9, wherein a connecting wire housing groove for catching said connecting wire is formed on said connecting wire support member.

12. (original) The axial gap electronic motor according to claim 11, wherein in at least part of said connecting wire housing groove, groove

width of an opening is formed to be narrower than groove width of an inside so that said connecting wire cannot easily fall off.

13. (previously presented) The axial gap electronic motor according to claim 12, wherein said connecting wire housing groove has an approximately C-shaped section.

14. (previously presented) The axial gap electronic motor according to claim 11, wherein a number of said connecting wire housing grooves corresponds to at least a number of phases.

15. (previously presented) The axial gap motor according to claim 11, wherein in a case in which at least two of said connecting wire housing grooves are provided at said connecting wire support member, one of the connecting wire housing grooves is disposed at an upper surface side of said connecting wire support member and the other connecting wire housing groove is disposed at a lower surface side of said connecting wire support member.

16. (previously presented) The axial gap electronic motor according to claim 9, wherein said connecting wire support member is provided with a twining portion around which a winding start end and a winding terminal end of the coil wound around said stator iron core are wound.

17. (previously presented) The axial gap electronic motor according to claim 16, wherein said twining portion has a first rod portion at a side of the winding start end of said coil and a second rod portion at a side of the winding terminal end of said coil, and a stopper with an extended diameter for preventing the coil from falling off is formed at a head portion of each of said rod portions.

18. (previously presented) The axial gap electronic motor according to claim 16, wherein in a case in which at least two of said twining

portions are provided at said connecting wire support member, said twining portions are disposed at positions with different heights.

19. (previously presented) The axial gap electronic motor according to claim 17, wherein coil catching grooves, for passing a part of the coil passing from the first rod portion at the side of the winding start end of said coil to an inside of said insulator and a part of the coil passing from the inside of said insulator to the second rod portion at the side of the winding terminal end of said coil, are formed at an upper edge of said flange.

20. (previously presented) The axial gap electronic motor according to claim 1, wherein said stator iron core is provided with a skew inclined at a predetermined angle with respect to a rotating direction of said rotor.

21-27. (cancelled)

28. (previously presented) The axial gap electronic motor according to claim 1, wherein resin introducing passages for enhancing flow of a resin when the pole members are integrally connected to each other by the resin, are provided at part of said insulator.

29. (previously presented) The axial gap electronic motor according to claim 1, wherein a pair of rotors is provided at a left and a right with said stator therebetween.

30. (previously presented) The axial gap electronic motor according to claim 1, wherein said stator iron core has a pair of tooth portions opposing said rotor and a winding portion formed between said tooth portions for winding said coil therearound, and said tooth portions have same projection areas to a left and a right lamination areas with said winding portion therebetween.

31. (canceled)

32. (new) The axial gap electronic motor according to claim 1, wherein said stator iron core and said insulator form said one unit integrally joined and fixed together without separation.

33. (new) An axial gap electronic motor comprising a stator and a rotor each formed approximately in a disc shape and disposed opposingly at a same rotary shaft with a predetermined gap,

wherein said stator comprises a plurality of pole members annularly connected, and

wherein each of said pole members has a stator iron core, and a bobbin-shaped insulator including a pair of left and right flanges for winding a coil and formed around said stator iron core, and said insulator is provided with connecting means for connecting each of said adjacent pole members,

wherein said connecting means includes at least one of a rotatable first engaging member and a rotatable second engaging member, said first engaging member comprising a combination of a boss and a bearing recessed portion therefor, said boss and recessed portion being provided at outer periphery sides, seen from a center of said stator, on opposing surfaces of said flanges of said adjacent pole members, and said second engaging member comprising a combination of a boss and a bearing recessed portion therefor, said boss and bearing recessed portion of the second engaging member being provided at inner circumferential sides, seen from the center of said stator, on the opposing surfaces of said flanges of said adjacent pole members.

34. (new) An axial gap electronic motor comprising a stator and a rotor each formed approximately in a disc shape and disposed opposingly at a same rotary shaft with a predetermined gap,

wherein said stator comprises a plurality of pole members

annularly connected, and

wherein each of said pole members has a stator iron core, and a bobbin-shaped insulator including a pair of left and right flanges for winding a coil and formed around said stator iron core, and said insulator is provided with connecting means for connecting each of said adjacent pole members,

wherein a connecting wire support member for supporting a connecting wire to be laid between the pole members is integrally provided in at least one of said flanges in each of said pole members, and

wherein a connecting wire housing groove for catching said connecting wire is formed on said connecting wire support member.